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39. ADDITIONS TO THE FLORA OF MADHYA PRADESH

The present paper deals with three new records of Angiosperm taxa from Morena district of Madhya Pradesh. During the course of floristic survey, we have collected and identified 3 taxa as *Hibiscus caesius* Garcke (Malvaceae), *Sphenoclea zeylanica* Gaertn. (Sphenocleaceae) and *Ipomoea optica* (L.) Roth ex Roem. & Schult (Convolvulaceae). The scrutiny of literature revealed that these taxa have not so far been reported from Madhya Pradesh.

Hibiscus Linn.

Hibiscus caesius Garcke, in Oester, Bot. Zeit. 7: 850. 1849, et in Peters, Reise Mossamb. 125; Cooke, Fl. Pres. Bomb. 1:16, 1958 (Pedr. ed.); Rakshit and Kundu, Bull. Bot. Surv. India 12: 173, 1970. *H. gibsoni* Stocks ex Harv. and Sond., Fl. Cap. 2: 587. 1861-62; Masters in Hook.f. Fl. Brit. India 1: 339, 1874. Duthie, Fl. Upp. Gang. Plain 1: 86, 1903. (MALVACEAE)

An erect, branched, whitish hairy or prickly perennial under shrub up to 1-2.5 m tall. Stem and branches bristly or with minute prickles. Leaves 3-5 partite; lobes oblong-lanceolate, sharply serrate, glabrous or hairy; petiole as long as blade. Involucral bracts usually 10, free, linear, prickly covering over the calyx. Peduncles axillary, solitary, longer than leaves. Flowers yellow with purple centre. Capsule ovoid painted, valves setose.

Ecological notes: Perennial, rarely found under bushes.

Fl. & Fr.: September-December.

11 species of *Hibiscus* L. occur in Madhya Pradesh. This species differs from the others in having involucral bracts free, prickly and longer than calyx.

Specimens examined: Morena district: Karahal (RLSS. 658).

Sphenoclea Gaertn.

Sphenoclea zeylanica Gaertn., Fruct. 1: 113, t. 24, f. 5. 1788; Graham, Cat. 248. 1839; Khan and Huq, in Khan Fl. Bangladesh 5:2. 1977; Clarke in Hook. f., Fl. Brit. India 3 : 438. 1881; Cooke, Fl. Pres. Bomb. 2: 134. 1904; Duthie, Fl. Upp. Gang. Pl. 1: 484. 1903; Babu, Herb. Fl. Deh. 295. 1977. *S. pongaticum* A.D.C. Prodr. 7: 548. 1838. (SPHENOCLEACEAE)

An erect, glabrous, simple or branched flashy annual herb up to 70 cm tall. Leaves elliptic-lanceolate, linear-oblong, tapering at both ends, acute or sub-acute, entire. Flowers small, greenish white, sessile, in dense terminal, peduncled spikes. Bracts and bracteoles sub spatulate, obtuse, accrescent, connivent in fruiting. Capsule semi-inferior, wedge shaped, truncate, crowned with persistent calyx lobes.

Ecological notes: Fleshy annual, rarely found in marshy places.

Fl. & Fr.: September-November.

A new record for the family. This species is generally found in coastal regions in partially saline soil and its occurrence away from Seashore is of significance. The plant is a serious cattle poison.

Specimens examined: Morena district: Sheopurkalan (RLSS. 272).

Ipomoea Linn.

Ipomoea optica (L.) Roth ex Roem. & Schult, Syst. 4: 208. 1819; Maheshwari, Fl. Del. 237. 1963; Majumdar in Bull. Bot. Surv. India 18: 52. 1976; Bhandari, Fl. Ind. Des. 252. f. 86. 1978;

Shah, Fl. Guj. 1: 468. 1978; Johri, in J. Econ. Tax. Bot. 5: 1122. 1984. *Convolvulus copticus* Linn. Mart. 2, Appen. 599. 1771.

Ipomoea dissecta Willd., Phytogr. 5: t. 2, f. 3. 1794; Clarke in Hook. f. Fl. Brit. India 4: 200. 1883; Cooke, Fl. Pres. Bomb. 2: 249. 1905 (Repr. ed. 2: 318. 1958); Duthie, Fl. Upp. Gang. Pl. 2: 115. 1911 (Repr. ed. 1: 556. 1960). (CONVOLVULACEAE)

A glabrous, prostrate or twining annual herb, upto 90 cm. long. Leaves digitately to pedately 3-7 lobed; lobes deeply serrate or dentate, or sometimes twice pinnatifid, ovate, elliptic, lanceolate or oblanceolate in outline. Petiole mostly shorter than the blade. Inflorescence axillary. Flowers white or Pale cream, 8013 mm long. Capsule globose, 3 celled; seeds 2, densely greyish-tomentose.

Ecological notes: Prostrate, annual found in sandy soil along rice fields.

Fl. & Fr.: August-December.

11 species of *Ipomoea* L. occur in Madhya Pradesh. This species differs from the others in having: Leaves digitate; lobes - 7, with deeply serrate or dentate margin.

ACKNOWLEDGEMENTS

We thank Prof. R.R. Das, Head, School of Studies in Botany, Jiwaji University, Gwalior (M.P.) for providing lab facilities; Director, Botanical Survey of India, Calcutta for financial assistance; and Dr S.K. Jain, F.N.A., National Botanical Research Institute, Lucknow (U.P.) for going through the manuscript and for valuable suggestions.

December 17, 1992

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40. SOME NEW RECORDS OF PLANTS FOR ORISSA

During ethnobotanical survey of Orissa, we collected 5 plant species, which have been identified as *Cassia alta* L., *Digera muricata* (Linn.) Mart., *Echinops echinatus* Linn., *Heliotropium supinum* L. and *Ranunculus sceleratus* Linn. The literature on floristics of Orissa shows that occurrence of these taxa from the state has not been reported earlier. The voucher specimens are preserved in the Herbarium of Regional Research Institute of Unani Medicine, Bhadrak.

AMARANTHACEAE

Digera muricata (Linn.) Mart., Beitr. Amar. 77. 1825; Henry *et al.*, Fl. Tamil Nadu 2: 192. 1987. *D. arvensis* Forssk. Fl. Aeg.-Arab. 65. 1775; Duthie, Fl. Upper gang. plain 3: 8. 1973 (repr. ed.); Gamble, Fl. Pres. Madras 2: 1168. 1984 (repr. ed.). *D. alternifolia* Aschres. in Haines, Bot. Bihar Orissa 5-6: 760. 1978 (repr. ed.).

A slender annual herb upto 60 cm high. Leaves alternate, entire, glabrous, ovate to elliptic with rounded or cuneate base. Inflorescence axillary spikes with small pink flowers. Fruit a subglobose crustaceous nut.

Occasional in harvested fields.

Fl. & fr.: July - December.

Nuagarh (Cuttack), 3.11.1989, *Girach & Aminuddin 3295*.

BORAGINACEAE

Heliotropium supinum L., Sp. Pl. 1753; Clarke in Hook. f., Fl. Brit. India 4: 149. 1883; Duthie, Fl. Upper gang. plain 2: 91. 1973 (repr. ed.); Gamble, Fl. Pres. Madras 2: 896. 1984 (repr. ed.); Henry *et al.*, Fl. Tamil Nadu 2: 100. 1987.

Prostrate much branched, softly white villous herbs. Leaves elliptic ovate, obtuse upto 2.5 cm long with crenate margin. Inflorescence short, wooly one sided spike. Flowers small white. Nuts 1-4 margined, enclosed in the calyx.

Occasional weed in harvested fields.

Motunga (Dhenkanal), 11-3-1989, *Girach & Aminuddin 3010*.

CAESALPINIACEAE

Cassia alata L., Sp. Pl. 378. 1753; Baker in Hook. f. Fl. Brit. India 2: 264. 1878; Nair &